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MEMOIR

OF

WILLIAM MACLURE, Esq.

LATE PRESIDENT OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA.

BY

SAMUEL GEORGE MORTON, M.D.,

ONE OF THE VICE-PRESIDENTS OF THE INSTITUTION.

READ JULY 1, 1841,

AND PUBLISHED BY DIRECTION OF THE ACADEMY.

Philadelphia:

PRINTED BY T. K. & P. G. COLLINS.

1841.

Hall of the Academy of Natural Sciences of Philadelphia,
July 1, 1841.

At a special meeting of the Society held this evening, Dr. Morton, pursuant to appointment, read a Memoir of Wm. Maclure, Esq., late President of the Academy: whereupon it was unanimously

Resolved, That the members of the Academy have listened with deep interest and entire satisfaction to the Discourse which has just been pronounced.

Resolved, That the thanks of the Academy be presented to Dr. Samuel George Morton for the able, faithful, and eloquent memoir of our late lamented President, William Maclure, this evening read to the Society, and that he be requested to furnish a copy of the same for publication.

Resolved, That Prof. Walter R. Johnson, John Price Wetherill, Esq., and Dr. Robert Bridges be a committee to communicate to Dr. Morton the foregoing Resolutions.

Philadelphia, July 2, 1841.

To Samuel George Morton, M. D.

Dear Sir—We have been directed by the Academy of Natural Sciences of Philadelphia to present you with a copy of the foregoing Resolutions, and perform a duty equally grateful to our own feelings and expressive of the unanimous sentiments of the Society, in tendering to you the thanks of the Institution for your admirable performance commemorative of our late lamented President.

While the friends and cultivators of Science mourn their recent loss and pay homage to departed worth among its patrons, they will not fail to recognise in such a tribute to the memory of the dead, a vigorous surviving spirit of scientific devotion—a pledge that the generous aspirations in our cause which ceased only with the life of Maclure, will find an ample fulfilment among the living recipients of his munificence.

Accept, sir, with the thanks of the Academy, the assurance of our individual esteem and sincere regard.

WALTER R. JOHNSON,
JOHN P. WETHERILL,
ROBERT BRIDGES,
} *Committee.*

Philadelphia, July 3, 1841.

Gentlemen—In reply to your note of yesterday, and the accompanying Resolutions, permit me to express, through you, my grateful acknowledgments to the Members of the Academy for the flattering manner in which they have received my memoir of the late William Maclure.

During a connection of many years with our Institution, it has been my constant aim to advance its interests, which are strictly identified with those of Science; and if my efforts have been in any degree successful, I shall ever find an ample reward in the approbation of my Associates.

I remain, gentlemen, with sincere esteem,

Your very obliged friend and servant,

SAMUEL GEORGE MORTON.

To Prof. Walter R. Johnson,
John Price Wetherill, Esq., and
Robert Bridges, M. D., } *Committee.*

TO

ALEXANDER MACLURE, Esq.,

AND TO

MISS ANNA MACLURE,

THIS MEMOIR

OF THEIR

ILLUSTRIOUS BROTHER,

IS

MOST RESPECTFULLY INSCRIBED

BY

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MEMOIR

OF

WILLIAM MACLURE, Esq.

The most pleasing province of Biography is that which commemorates the sway of the affections. These, however variously expressed, tend to the diffusion of Religion, of Virtue and of Knowledge, and consequently of Happiness. He who feeds the hungry, or soothes the sorrowful, or encourages merit, or disseminates truth, justly claims the respect and gratitude of the age in which he lives, and consecrates his name in the bosom of posterity. The benefactions of a liberal mind not only do good of themselves, but incite the same spirit in others; for who can behold the happy results of useful and benevolent enterprise, and not feel the godlike impulse to participate in and extend them?

The study of Natural History in this country, though late in attracting general attention, has expanded with surprising rapidity. Thirty years ago all our naturalists were embraced in a few cultivators

of Botany and Mineralogy, while the other branches were comparatively unheeded and unknown. The vast field of inquiry was devoid of labourers, excepting here and there a solitary individual who pursued the sequestered paths of Science, filled with an enthusiasm of which the busy world knew nothing. How widely different is the scene which *now* presents itself to our view! Behold the multitude which throngs that once neglected arena, and mark the cheering results! We see the unbounded resources of the land brought forth to the light of day, and made to minister to the wants and the intelligence of humanity. Every region is explored, every locality is anxiously searched for new objects of utility, or new sources of study and instruction.

In connection with these gratifying facts, it will be reasonably inquired, who were they who fostered the early infancy of Science in our country? Who were they who stood forth, unmindful of the sneer of ignorance and the frown of prejudice, to unveil the fascinating truths of Nature?

Among the most zealous and efficient of these pioneers of discovery was WILLIAM MACLURE.

This gentleman, the son of David and Ann Maclure, was born at Ayr in Scotland, in the year 1763; and he there received the primary part of his education under the charge of Mr. Douglass, an intelligent

teacher, who was especially reputed for classical and mathematical attainments. His pupil's strong mind readily acquired the several branches of a liberal education; but he has often remarked, that from childhood he was disposed to reject the learning of the schools for the simpler and more attractive truths of natural history. The active duties of life, however, soon engrossed his time and attention; and at the early age of nineteen years he visited the United States with a view to mercantile employment. He landed in the city of New York; and having made the requisite arrangements, returned without delay to London, where he commenced his career of commercial enterprise as a partner in the house of Miller, Hart & Co. He devoted himself to business with great assiduity, and speedily reaped a corresponding reward. In the year 1796 he again visited America, in order to arrange some unsettled business of the parent establishment: but in 1803 we find him once more in England, not, however, as a merchant, but in the capacity of a public functionary; for Mr. Maclure was at this time appointed a commissioner to settle the claims of American citizens on the government of France, for spoliations committed during the revolution in that country. In this arduous and responsible trust Mr. Maclure was associated with two colleagues, John Fenton Mercer and Cox Barnet, Esqs.;

and by the ability and diligence of this commission, the object of their appointment was accomplished to general satisfaction.

During the few years which Mr. Maclure passed on the Continent in attention to these concerns, he took occasion to visit many parts of Europe for the purpose of collecting objects in Natural History, and forwarding them to the United States—which from his boyhood had been to him the land of promise, and subsequently his adopted country. With this design he traversed the most interesting portions of the old world, from the Mediterranean Sea to the Baltic, and from the British Islands to Bohemia. Geology had become the engrossing study of his mind; and he pursued it with an enthusiasm and success to which time, toil and distance presented but temporary obstacles.

Instructed by these researches, Mr. Maclure was prepared, on his return to the United States, to commence a most important scientific enterprise, and one which he had long contemplated as the great object of his ambition, viz: a Geological Survey of the United States.

In this extraordinary undertaking we have a forcible example of what individual effort can accomplish, unsustained by government patronage, and unassisted by collateral aids. At a time when scientific pursuits

were little known and still less appreciated in this country, he commenced his herculean task. He went forth with his hammer in his hand and his wallet on his shoulder, pursuing his researches in every direction, often amid pathless tracts and dreary solitudes, until he had crossed and recrossed the Alleghany mountains no less than fifty times. He encountered all the privations of hunger, thirst, fatigue and exposure, month after month, and year after year, until his indomitable spirit had conquered every difficulty, and crowned his enterprise with success.

Mr. Maclure's observations were made in almost every state and territory in the Union, from the river St. Lawrence to the Gulf of Mexico; and the Memoir which embraced his accumulated facts, was at length submitted to the American Philosophical Society, and printed in their Transactions for the year 1809.*

Novel as this work was, and replete with important details, its author did not suspend his researches with its publication, but resumed them on a yet more extended scale, in order to obtain additional materials, and test the correctness of his previous views. In

* This memoir is entitled, "Observations on the Geology of the United States, explanatory of a Geological Map." It was read January 20, 1809, and is published in the sixth volume of the Society's Transactions.

after life he often recurred with pleasure to the incidents connected with this survey; some of which, though vexatious at the time, were subsequently the theme of amusing anecdote. When travelling in some remote districts, the unlettered inhabitants seeing him engaged in breaking the rocks with his hammer, supposed him to be a lunatic who had escaped from confinement; and on one occasion, as he drew near a public house, the inmates, being informed of his approach, took refuge in-doors, and closing the entrance held a parley from the windows, until they were at length convinced that the stranger could be safely admitted.

Incidents of this kind, and many others which occurred to him, appear to have influenced the following remarks in the Preface to his Geology: "All inquiry into the nature and properties of rocks, or the relative situation they occupy on the surface of the earth, has been much neglected. It is only since a few years that it has been thought worth the attention of either the learned or unlearned; and even now a great proportion of both treat such investigations with contempt, as beneath their notice. Why mankind should have so long neglected to acquire knowledge so useful to the progress of civilization—why the substances over which they have been daily stumbling, and without whose aid they could not

exercise any one art or profession, should be the last to occupy their attention—is one of those problems perhaps only to be solved by an analysis of the nature and origin of the power of the few over the many."

Notwithstanding that Mr. Maclure thus felt himself almost alone in his pursuits in this country, he did not relax his ardour in the cause of science, but continued to extend and complete his Geological survey; which, after receiving his final revisions, was again presented to the Philosophical Society on the 16th of May, 1817, eight years after their reception of the original draft. The amended memoir was now republished, both in the Society's Transactions and in a separate volume, accompanied by a coloured map and sections; and while it placed its author among the first of living Geologists, excited a thirst for inquiry and comparison which has continued to extend its influence over every section of our country.

It is not proposed, in this place, to analyze this valuable contribution to American Science. It may be sufficient to remark, that every one conversant with Geology is surprised at the number and accuracy of Mr. Maclure's observations; for the many surveys which have been recently conducted in almost every state in the Union, have only tended to confirm his correctness as to the extent and relative position of the leading Geological formations of this

country; while the genius and industry which could accomplish so much, must command the lasting respect and admiration of those who can appreciate the triumphs of Science. In the evening of his days Mr. Maclure beheld with unmixed pleasure, the progress of Geology in his adopted country: he saw State after State directing Geological surveys under the supervision of zealous and able naturalists: he rejoiced to observe how their observations hamonized with his own; and it was among his most pleasing reflections, as age and infirmity drew near, that he had once trodden almost solitary and unheeded, that path which is now thronged with votaries of science and aspirants for honour.

In truth, what among temporal considerations is more remarkable and gratifying than the progress which has been made in elucidating the Geology of this country during the past thirty years? So extended a field, so many obstacles, and so little patronage, seemed at first view to present insuperable difficulties; and it was feared, and not without reason, that while every part of Europe was explored under the patronage of national governments, the vast natural resources of this country would long remain unsearched and unimproved; not for the want of zeal and talent, but from a deficiency of that encouragement which is necessary to great and persevering

exertion. Happily, however, the day of doubt has passed; and our State governments now vie with each other in revealing those buried treasures which minister so largely to the wealth, the comfort and the intelligence of man.

The time which Mr. Maclure allotted to repose from his Geological pursuits was chiefly passed in Philadelphia; where he watched the rise of a young but promising institution, devoted exclusively to Natural History, and numbering among its members whatever our city then possessed of scientific taste and talent. This institution was the ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA; and as its history, from this period, is inseparably connected with the life of Mr. Maclure, let us pause and inquire into its origin and progress.

The Academy was founded in January, 1812, at which period a few gentlemen, at first but seven in number, resolved to meet once in every week for the purpose of conversing on scientific subjects, and thus communicating to each other the results of their reading, observation and reflection.

Although Mr. Maclure was absent from the city at the initiatory meeting, he had no sooner returned than his name was enrolled on the list of members; and from that hour and with this circumstance the prosperity of the institution commenced. Arrange-

ments were soon after entered into for the delivery of courses of lectures, chiefly on Chemistry and Botany; and the library and museum were at once replenished with books and specimens from Mr. Maclure's European collections.

On the 30th of December, 1817, Mr. Maclure was elected President of the Academy; to which office of confidence and honour he was annually re-elected up to the time of his death, a period of more than twenty-two years.

Under his auspices the Journal of the Academy (which now numbers eight octavo volumes) was commenced with energy and talent; and such was his interest in its progress, that a considerable portion of the first volume was printed in an apartment of his own house.

Among the most ardent of Mr. Maclure's colleagues at this time was Mr. Thomas Say, a gentleman who united in a remarkable degree the love of science and the social virtues. Enthusiastic in his favourite studies, and possessed of a singular tact for detecting the varied relations of organized beings, he early attracted the notice and secured the esteem of Mr. Maclure; and the friendship which thus grew up between them, continued unaltered by time or circumstance to the end of life. How much the Academy and the cause of Natural History owe to

the united efforts of these gentlemen, I need not declare; for not only here, but wherever their favourite pursuits are loved and cultivated, their names will be inseparably interwoven with the records and the honours of science.

During the year 1817 Mr. Maclure chiefly occupied himself in the publication of his Geology in a separate volume; after which he devoted himself with assiduity to the interests of the Academy. Previous to the year 1819 he had already presented the institution with the larger part of the fine library he had collected in Europe, embracing nearly fifteen hundred volumes; among which were six hundred quartos and one hundred and forty-six folios on Natural History, Antiquities, the Fine Arts, Voyages and Travels. "The value of these acquisitions was greatly enhanced by the fact that they were possessed by no other institution on this side of the Atlantic. The Academy therefore derived from this source a prosperity and permanence which, under other circumstances, must have been extremely slow and uncertain; while Science at the same time received an impulse which has never faltered, and which has been subsequently imparted to every section of our country."*

* Notice of the Academy of Natural Sciences, p. 13.

In the winter of 1816–17 Mr. Maclure visited the West Indies, for the purpose of ascertaining, by personal observation, the Geology of that chain of islands known as the Antilles. With this view he visited and examined nearly twenty of these islands, in the Caribean Sea, from Barbadoes to Santa Cruz and St. Thomas inclusive. He bestowed especial attention on those portions of the series which are of volcanic origin, of which the Grenadines form the southern and Saba the northern end of the chain. The results of this voyage of observation, in which he was accompanied by his friend Mr. Lesueur, were submitted to the Academy on the 28th of October 1817, and soon afterwards published in the Society's Journal.*

In 1819 Mr. Maclure's active mind was again directed to Europe. Embarking at New York he went direct to France, and not long afterwards to Spain. He was induced to visit the latter country on account of the liberal constitution promulgated by the Cortes, which promised a comparatively free government to a country long oppressed by every species of bondage. His plan was to establish a great agricultural school, in which physical labour should be combined with moral and intellectual culture.

* Journal of the Academy of Natural Sciences, vol. i.

His views were almost exclusively directed to the lower and consequently uneducated classes, whom he hoped to elevate above the thraldom to which they had been subjected by the institutions of their country. He purchased of the government 10,000 acres of land near the city of Alicant; and having repaired the buildings, and placed the estate in complete order, he prepared to commence his scheme of practical benevolence. Scarcely, however, were these arrangements made when the Constitutional government was overthrown, and the old institutions, with all their abuses, were again imposed upon this unfortunate country. The property which Mr. Maclure had purchased from the Cortes had been confiscated from the Church; and as the priesthood were now reinvested in their estates, they at once dispossessed him without ceremony or reimbursement.

Disappointed and mortified by this adverse termination of his plans, Mr. Maclure abandoned them as hopeless, and prepared to return to the United States. Before doing so, however, he visited various parts of southern Spain with a view to scientific investigation. But even in this unoffending employment he found himself surrounded by new dangers, which compelled him to relinquish much that he had proposed to accomplish in these researches; and his feelings, and the causes which gave rise to them, are forcibly ex-

pressed in a letter to his friend Professor Silliman, dated Alicant, March 6, 1824.

"I have been much disappointed in being prevented from executing my Mineralogical excursions in Spain, by the bands of powerful robbers that have long infested the astonishingly extended surface of uncultivated and inhospitable wilds in this naturally delightful country. Not that I require any money worth the robbing to supply me with all that I need —for the regimen which I adopt for the promotion of my health, demands nothing but water and a very small quantity of the most common food—but these barbarians have adopted the Algerine system of taking you, as a slave, to the mountains, where they exact a ransom of as many thousand dollars as they conceive the property you possess will enable you to pay."*

On returning to the United States in 1824, Mr. Maclure was still intent on establishing an Agricultural School on a plan similar to that he had attempted in Spain. At this juncture the settlement at New Harmony, in Indiana, had been purchased by the eccentric author of the Social System; and many intelligent persons, deceived by a plausible theory, went forth to join the Utopian colony; and Mr. Maclure himself, willing to test the validity of a sys-

* American Journal of Science, vol. viii, p. 187.

tem which seemed to promise something for human advantage, resolved to establish, in the same locality, his proposed Agricultural School. He did not, at the same time, adopt all the peculiar views of this fugitive community, to many of which, in fact, he was decidedly opposed; but he consented to compromise a part of his own opinions in order to accomplish, in his own phrase, "the greatest good for the greatest number." For this purpose he forwarded to New Harmony his private library, philosophical instruments and collections in Natural History, designing, by these and other means, to make that locality the centre of education in the West. That the Social scheme was speedily and entirely abortive, is a fact familiar to every one; but Mr. Maclure having purchased extensive tracts of land in the town and vicinity of New Harmony, continued to reside there for several years, in the hope of bringing his school into practical operation.

In leaving Philadelphia for New Harmony, Mr. Maclure induced several distinguished naturalists to bear him company, as coadjutors in his educational designs; and among them were Mr. Say, Mr. Lesueur, Dr. Troost, and a few others, who had already earned an enviable scientific reputation.

For various reasons, which need not be discussed in this place, the School did not fulfil the expectations

of its founder, who was at length constrained to relinquish it; and the less reluctantly as the approach of age, and the increasing delicacy of his constitution, admonished him of the necessity of seeking a more genial climate. We accordingly find him, in the autumn of 1827, embarking for Mexico in company with his friend Mr. Say. They passed the winter in that delightful country; and employed their time in observing and recording the various new facts in science which there presented themselves; and on the approach of summer they returned to the United States.

Mr. Maclure was so pleased with the climate of Mexico, and so solicitous to study the social and political institutions of that country, that he determined to return the same year; and with this intent he visited Philadelphia, proceeded thence to New Haven, and presided for the last time at a meeting of the American Geological Society in that city on the 17th of November, 1828. Of this institution he had also long been President, and took an active interest in its prosperity, which was strengthened by his regard for his friend Professor Silliman—a man whom we all esteem for his zealous and successful exertions to advance the interests of Science, as well as for his extensive acquirements and his many virtues. On this occasion Mr. Maclure declared his intention to

bring back with him from Mexico a number of young native Indians, in order to have them educated in the United States, and subsequently diffuse the benefits of instruction among the people of their own race. This benevolent object, however, was not accomplished; for in the ordering of Providence he did not live to return.

From New Haven Mr. Maclure proceeded to New York, and embarked for Mexico. Time and distance, however, could not estrange him from that solicitude which he had long cherished for the advancement of education in his adopted country; and from his remote residence he kept a constant correspondence with his friends in the United States, among whom was the author of this memoir.

Mr. Say* died in 1834, at New Harmony; and Mr. Maclure was thus deprived of one of his oldest and firmest friends. The loss seemed for a time to

* Mr. Say was one of the founders of the Academy; and among the last acts of his life, he provided for the further utility of the institution by requesting that it should become the depository of his books and collections. This verbal bequest was happily confided to one whose feelings and pursuits were congenial to his own; and the Academy is indebted to Mr. and Mrs. Say for some of its most valuable acquisitions.

An interesting and eloquent Memoir of Mr. Say, was written by Dr. Benjamin Hornor Coates, and published under the auspices of the Academy in 1835.

render him wavering as to his future plans; but convinced, on reflection, that his educational projects in the West could be no longer fostered or sustained, he resolved to transfer his library at New Harmony to the Academy of Natural Sciences. This rich donation was announced to the Society in the autumn of 1835; and Dr. Charles Pickering, who had been for several years librarian of the institution, was deputed to superintend the conveyance of the books to Philadelphia; a trust which was speedily and safely accomplished.

This second library contained 2259 volumes, embracing, like the former one, works in every department of useful knowledge, but especially Natural History and the Fine Arts, together with an extensive series of maps and charts.

Mr. Maclure's liberality, however, was not confined to a single institution: the American Geological Society, established, as we have already mentioned, at New Haven, partook largely of his benefactions both in books and specimens; and in reference to these repeated contributions Professor Silliman has expressed the following brief but just and beautiful acknowledgment: "This gentleman's liberality to purposes of science and humanity has been too often and too munificently experienced in this country, to

demand any eulogium from us. It is rare that affluence, liberality and the possession and love of science unite so signally in the same individual."*

Since the year 1826 the Academy had occupied an edifice in some respects well adapted to its objects; but the extent and value of the library, suggested to Mr. Maclure the necessity of a fire-proof building. In order to accomplish this object he first transferred to the Society a claim on an unsettled estate for the sum of five thousand dollars, which was followed in 1837 by a second donation of the same amount. Meanwhile, having matured the plan of the new Hall of the Academy, and having submitted his views to the members, he transmitted, in 1838, an additional subscription for ten thousand dollars.

Thus sustained by the splendid liberality of their venerable President, the Society proceeded without delay in the erection of the new Hall. The corner stone was laid at the corner of Broad and George streets, with due form, on the 25th of May 1839; on which occasion an appropriate Address was delivered by Professor Johnson. The edifice thus auspiciously begun, was conducted without delay to completion; so that the first meeting of the Society within its walls was held on the 7th day of February 1840.

* Amer. Jour. of Science, vol. iii, p. 362.

Mr. Maclure had fervently desired and fully expected to revisit Philadelphia; but early in the year 1839 his constitution suffered several severe shocks of disease, and from that period age and its varied infirmities grew rapidly upon him. Under these circumstances he became more than ever solicitous to return to the United States, to enjoy again the companionship of his family and friends, and to end his days in that land which had witnessed alike his prosperity and his munificence.

He made repeated efforts to accomplish this last wish of his heart; and finally arranged with his friend Dr. Burrough, then United States Consul at Vera Cruz, to meet him at Jalapa with a *littera* and bearers, in order to conduct him to the sea-coast. Dr. Burrough faithfully performed his part of the engagement; but after waiting for some days at the appointed place of meeting, he received the melancholy intelligence that Mr. Maclure, after having left Mexico and accomplished a few leagues of his journey, was compelled by illness and consequent exhaustion to relinquish his journey.

Languid in body, and depressed and disappointed in mind, Mr. Maclure reluctantly retraced his steps; but being unable to reach the capital, he was cordially received into the country-house of his friend Valentine Gomez Farias, Ex-President of Mexico, where

he received all the attentions which hospitality could dictate. His feeble frame was capable of but one subsequent effort, which enabled him to reach the village of San Angel; where, growing weaker and weaker, and sensible of the approach of death, he yielded to the common lot of humanity on the 23d day of March, 1840, in the seventy-seventh year of his age.

The death of Mr. Maclure was announced to the Academy on Tuesday evening, the 28th of April, on which occasion the following Resolutions were unanimously adopted:

Resolved, That the Academy has learned with deep concern, the decease, at San Angel, near the city of Mexico, of their venerable and respected President and benefactor, William Maclure, Esq.

Resolved, That although his declining health induced him to reside for some years in a distant and more genial clime, this Academy cherishes for Mr. Maclure the kindest personal recollections, and a grateful sense of his contributions to the cause of Science.

Resolved, That as the Pioneer of American Geology, the whole country owes to Mr. Maclure a debt of gratitude, and in his death will acknowledge the loss of one of the most efficient friends of Science and the Arts.

Resolved, That as the patron of men of science, even more than for his personal researches, Mr. Maclure deserves the lasting regard of mankind.

Resolved, That a member of the Academy be appointed to prepare and deliver a discourse commemorative of its lamented President.

Resolved, That the Corresponding Secretary be requested to communicate to the family of Mr. Maclure a copy of these Resolutions.

Mr. Maclure died before he had accomplished *all* his views in respect to this Institution; for, looking forward, as he did, to renewed personal intercourse with its members, he intended to inquire for himself into the most available modes of extending its usefulness. This, as we have seen, was denied him; but the spirit of Science which was inherent in him, has descended upon his brother and sister; and to these estimable and enlightened individuals, we owe the consummation of all that their brother had proposed in reference to the Academy, which will be hereafter enabled to devote its resources exclusively to the advancement of those objects for which it was founded.

Thus closed a life which had been devoted, with untiring energy and singular disinterestedness, to the attainment and diffusion of practical knowledge. No

views of pecuniary advantage, or personal aggrandizement, entered into the motives by which he was governed. His educational plans, it is true, were repeatedly inoperative, not because he did too little, but because he expected more than could be realized in the social institutions by which he was surrounded. He aimed at reforming mankind by diverting their attention from the mere pursuit of wealth and ambition, to the cultivation of the mind; and espousing the hypothesis of the possible "equality of education, property and power" among men, he laboured to counteract that love of superiority which appeared to him to cause half the miseries of our species. However fascinating these views are in theory, mankind are not yet prepared to reduce them to practice; and without entering into discussion in this place we may venture to assert, that what Religion itself has not been able to accomplish, Philosophy will attempt in vain.

Mr. Maclure's character habitually expressed itself without dissimulation or disguise. Educated in the old world almost to the period of manhood, and inflexibly averse to many of its established institutions, he was prone to indulge the opposite extremes of opinion, and became impatient of those usages which appeared to him to fetter the reason and embarrass the genius of man; and while he rejoiced in

the republican system of his adopted country, he aimed at an intellectual exaltation which, to common observation at least, seems incompatible with the wants and impulses of our nature.

Fully and justly imbued with the importance of disseminating practical truth, he strove through its influence to bring the several classes of mankind more on a level with each other; not by invading the privileges of the rich, but by educating the poor; thus enforcing the sentiment that "knowledge is power," and that he who possesses it will seldom be the dupe of designing and arbitrary minds. With a similar motive he endeavoured to inculcate the elements of Political Economy, by the publication of epistolary essays in a familiar style, which have been embodied in two volumes with the title of *Opinions on Various Subjects*. They discover a bold and original mind, and a fondness for innovation which occasionally expresses itself in a startling sentiment; but however we may differ from him on various questions, it must be conceded that his views of financial operations were remarkably correct, inasmuch as he predicted the existing pecuniary embarrassments of this country, at the very time when the great mass of observers looked forward to accumulating wealth and unexampled prosperity.

Let it not be supposed that Mr. Maclure's benevo-

lent efforts were restricted to those extended schemes of usefulness to which we have so often adverted. Far, very far from it. His individual and more private benefactions, were such as became his affluent resources, influenced by a generous spirit. He habitually extended his patronage to genius, and his cordial support to those plans which, in his view, were adapted to the common interests of humanity. There are few cabinets of Natural History in our country, public or private, that have not been augmented from his stores; and several scientific publications of an expensive character, have been sustained to completion by his instrumentality. While in Europe he purchased the copper-plate illustrations of some important works both in Science and Art, with the intention of having them republished at home in a cheaper form, in order to render them accessible to all classes of learners. Among these works was Michaux's Sylva, which is now going through the press in conformity to his wishes.

He was singularly mild and unostentatious in his manner; and though a man of strong feelings, he seldom allowed his temper to triumph over his judgment. Cautious in his intimacies, and firm in his friendships, time and circumstance in no degree weakened the affections of his earlier years. Though affable and communicative, Mr. Maclure was very

much of an isolated man during the last thirty years of his life; partly owing to a naturally retiring disposition, partly to the peculiarity of some of his opinions, in respect to which, though unobtrusive, he was inflexible—but mainly to that frequent change of residence which is unfavourable to social fellowship. Hence it is that of the thousands who are familiar with his name in the annals of Science, comparatively few can speak of him from personal knowledge.

In person he was above the middle stature, and of a naturally robust frame. His constitution was elastic, and capable of much endurance of privation and fatigue, which he attributed chiefly to the undeviating simplicity of his diet. His head was large, his forehead high and expanded, his nose aquiline; and his collective features were expressive of that undisturbed serenity of mind which was a conspicuous trait of his character.

Those who knew him in early life, represent him to have been remarkable for personal endowments; a fact which is evident in the full-length portrait now in possession of his family, and which was painted upwards of forty years ago by the celebrated Northcote. The lithographed likeness which accompanies this memoir, is copied from a portrait taken by Mr. Sully in 1824, at which period Mr. Maclure was about sixty-three years of age.

Such was WILLIAM MACLURE, whose long, active and useful life is the subject of this brief and inadequate memorial. His remains are entombed in a distant land, and even there the spirit of affection is raising a tablet to his memory. But his greater and more enduring monument, is the edifice within whose walls we are now met to recount and perpetuate his virtues. Wherever we turn our eyes we behold the proofs of his talent, his zeal, his munificence. We see an Institution which, under his fostering care, has already attained the manhood of Science, and is destined to connect his name with those beautiful truths which formed the engrossing subject of his thoughts. We see around us the collections that were made with his own hands, vastly augmented, it is true, by the zeal of those who have been stimulated by his example. Here are the books which he read—to him the fountains of pleasure and instruction. Here has he concentrated the works of Nature, the sources of knowledge, the incentives to study; and, actuated by his liberal spirit, we open our doors to all inquiring minds, and invite them to participate, with us, in these invaluable acquisitions; and while we regard them as a trust to be transmitted unblemished to posterity, let us honour the name and cherish the memory of the man from whom we derived them.

APPENDIX.

List of the Published Works and Memoirs of Mr. Maclure.

The following list embraces the separate works (two in number) and miscellaneous papers written by Mr. Maclure during his residence in the United States. It is not presumed that the list is complete; for it is more than probable that he contributed something to the periodical journals of England, France, Spain, and perhaps Mexico, whilst resident in those countries.

A reference to the following Essays will show how exclusively Mr. Maclure's mind was devoted to matters of fact, seldom indulging in hypothesis, and never yielding himself, at least in his writings, to purely imaginative reflections.

1. Observations on the Geology of the United States of America, with some Remarks on the Nature and Fertility of Soils, &c. 8vo. Philad. 1817. This is a corrected reprint from the Trans. of the Amer. Philos. Soc.

2. Opinions on Various Subjects, 2 vols. 8vo. This work is epistolatory, and was chiefly written in Mexico. It embraces reflections on many subjects, but is mainly devoted to Political Economy.

Memoirs in the Journal of the Academy of Natural Sciences of Philadelphia:

1. Observations on the [Geology of the] West India Islands, from Barbadoes to Santa Cruz, inclusive. Vol. I, p. 134.
2. Essay on the Formation of Rocks; or an Inquiry into their probable Origin, and their present Form and Structure. Vol. I, p. 261.

Memoirs in the American Philosophical Transactions:

1. Observations on the Geology of the United States, explanatory of a Geological Map. Vol. VI, p. 91. 1809.
2. The same Memoir, corrected and extended. Vol. I, New Series, 1817.

Memoirs in the American Journal of Science and Art, conducted by Professor Silliman:

1. Hints on some of the Outlines of Geological Arrangement. Vol. I, p. 209.
2. Conjectures on the probable changes that have taken place in the Geology of the Continent of America, east of the Stony Mountains. Vol. VI, p. 98.
3. Miscellaneous Remarks on the Systematic Arrangement of Rocks, and on their probable Origin. Vol. VII, p. 261.
4. Notice of the Anthracite Region of Pennsylvania. Vol. X, p. 205.
5. Remarks on the Igneous Theory of the Earth. Vol. XVI, p. 351.
6. Geological Remarks relating to Mexico. Vol. XX, p. 406. The same periodical also contains many detached Observations, and fragments of letters communicated to the Editor of that work.

Memoirs published in the Journal de Physique, de Chimie et d'Histoire Naturelle, Paris:

1. Extrait d'une Lettre de M. William Maclure, à J. C. Delamètherie sur la Geologie des Etats Unis. Tome 69, p. 201. (1809.)
2. Observations sur la Geologie des Etats Unis, servant à expliquer une Carte Geologique. Tome 69, p. 204. (1809.)

This last memoir is a translation from the original in the American Philosophical Transactions.

NOTE.

The Hall of the Academy of Natural Sciences of Philadelphia is situated at the corner of Broad and George streets, forty-five feet front on the former, and eighty-five in depth on the latter. The building is fire-proof, and presents a single saloon with three ranges of galleries, beneath which, in the basement, is a lecture-room capable of accommodating four hundred persons.

The Institution was founded in 1812 and incorporated in 1817, and enjoys a perpetual exemption from taxation by legislative enactment.

The Museum embraces extensive collections in every department of Natural History, arranged according to the most approved systems, viz:

2500 Minerals.

3000 Fossil Organic Remains.

10,000 Species of Insects.

2400 Species of Shells.

1000 Species of Fishes and Reptiles.

1300 Species of Birds; a small but valuable collection of Quadrupeds, and an extensive series of Comparative Anatomy.

The Herbarium contains about 35,000 species of plants, arranged according to the natural system.

The Library embraces 7000 volumes, and is always accessible to members, and to visiters attended by members, excepting only those occasions when the Academy is open to the public, viz:—on the afternoons of Tuesday and Saturday.

Admission free of charge.

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